

fritillary (*Speyeria diana*), a Federal Species of Concern, is now believed extirpated from the eastern Piedmont, though it is locally numerous in the foothills and mountains.

Despite this fairly large list of rare species, six animals are considered to be extirpated, and four others have not been reported recently. Certainly, habitat loss has been extensive in Wake County, explaining the abandonment of a colony site of southeastern myotis and the presumed loss of habitat for the southern hognose snake. The red-cockaded woodpecker was lost due to fire suppression and simply abandonment of cluster sites at the inner edge of the range, with no replacement of birds from adjoining regions. Bachman's sparrows lost their habitat to expansion and clearing at the Raleigh-Durham Airport, though the species was still found recently in extensive clearcuts in nearby southeastern Chatham County (and thus might still be possible on Shearon Harris lands).

Considering the major residential developments in the county, it is a bit surprising that all the rare mussel species have been seen within the past 10 years. However, Hurricane Fran in 1996 and Hurricane Floyd in 1999 caused much treefall and sedimentation to reach the county's creeks and rivers. Also, the county's growing beaver (*Castor canadensis*) population is resulting in many flowing streams being converted to non-flowing waters (i.e., beaver ponds). Thus, the current status of these rare mussels in Wake County needs re-evaluation, as it is expected that mussel populations in the county have suffered during the past decade.